Biodiversity and survival on Mt William, Grampians National Park, Victoria

When any wildfire burns through large landscapes, it is not uncommon for small areas to remain unburnt. These sites are often in wet gullies or where wind-change spares certain areas. This was the case in the Grampians in western Victoria, where a major wildfire burnt through approximately 46% of the National Park in the summer of 2005/2006. Mt William, the highest peak in the park, was severely burnt; however, a section of the gully below the turntable car park and a significant portion near the summit escaped the fire.

During the first week of October 2007, staff and students from the School of Life and Physical Sciences, RMIT University, visited the Grampians National Park to study biodiversity. On the morning of 2 October 2007 we visited Mt William, primarily to examine the effects of the fire on vascular flora. The day was sunny with a slight breeze so there was a chance that we may also observe some vertebrates, especially reptiles and birds, that may have survived the fires or were recolonising the area. On the drive up from the valley we saw that the effects of the fire were dramatic, with lichen and moss burnt from every rock. Blackened tree trunks and branches stretched into the distance. However, resprouting was occurring everywhere with epicormic shoots adorning most trees.

As we began the one-kilometre walk to the summit White-eared Honeyeaters *Lichenostomus leucotis* were calling from Brown Stringybark *Eucalyptus baxteri* in the unburnt gully below the car park. A Grey Fantail *Rhipidura fuliginosa* also began to call and soon showed itself as it chased insects. It wasn't long before the first of many Southern Water Skinks *Eulamprus tympanum* was seen basking (Fig. 1). A further search also revealed a Tiger Snake *Notechis scutatus* of about one metre in length basking on an adjacent

Fig. 1. Southern Water Skink *Eulamprus tympanum*. Photo by Nevil Schultz.

Fig. 2. Mountain Dragon *Rankinia diemensis*. Photo by Damien Murtagh.

boulder. Here the vegetation was of much reduced height compared to the area around the car park, and there were some healthy stands of Victorian Smoke Bush *Conospermum mitchellii* in full flower. This was in contrast to the fading flowers of the deeper pink variant of the Common Heath *Epacris impressa* nearby.

A little further up the road, in a lightly-burnt area, Common Beard Heath *Leucopogon virgatus* was in bud and flower stage. Here some students stopped to photograph a Southern Water Skink, but also noticed a small dragon basking on a nearby rock (Fig. 2). Looking closely we could see a row of enlarged spinose scales on the base of the tail, a diagnostic feature of the Mountain Dragon *Rankinia diemensis* (Wilson and Swan 2003). The Mountain Dragon reaches the western limits of its distribution in the Grampians, where the population is listed as 'data deficient' (DSE 2007). The last known record of the species from Mt William was about twenty years ago (P Robertson pers. comm), so this was an important chance sighting of a rare species, especially after such a devastating fire. The students were already familiar with the Mountain Dragon, having captured the species during pitfall trapping in Heathy Woodland near Anglesea in February 2006. The Anglesea form of the Mountain Dragon is also listed as 'data deficient' but it inhabits very different vegetation from the Montane Rocky Shrubland of Mt William.

We continued uphill into the unburnt section, where Southern Water Skinks were particularly abundant. A check of the boulders below the road revealed a basking Lowland Copperhead *Austrelaps superbus*, which disappeared rapidly as soon as it was disturbed. On the other side of the road and slightly uphill, a pair of White-browed Scrubwrens *Sericornis frontalis* were giving their typical loud alarm call, whilst flying back and forth and pointing their beaks towards the base of a shrub.

Fig.3. Pinc Heath *Astroloma pinifolium*. Photo by Nevil Schultz.

Closer inspection revealed a basking Tiger Snake that flattened its neck as it sensed our presence.

On the last straight stretch before the summit a Black Rock Skink *Egernia saxatilis* was seen, but it quickly ran under a rock ledge when approached. Further on, several Gang-gang Cockatoos *Callocephalon fimbriatum* were feeding in a warty-fruited, higher altitude variant of the Brown Stringybark (formerly *Eucalyptus alpina*). Just below the summit, germination of Rock Banksia *Banksia saxicola* was prolific. The Pine Heath *Astroloma pinifolium* (Fig. 3) was in several stages of flowering at this point, its spectacular two-toned yellow and green flowers sheltered by large rocky outcrops. An Eastern Spinebill *Acanthorhynchus tenuirostris* was calling from somewhere down the slope in the thick vegetation. Our walk concluded with the Spinebill finally revealing itself as it flashed across the road and disappeared behind a mature Rock Banksia.

Acknowledgements

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References

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